

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-4. (Canceled)

5. (Currently Amended) A deframer for a wireless communication device to recover Point-to-Point Protocol (PPP) packet data which has been framed in Radio Link Protocol (RLP) packets, comprising:

an input interface unit operative to wirelessly receive data to be deframed from one or more Radio Link Protocol (RLP) packets, wherein a RLP packet includes one or more RLP words and wherein a RLP word includes one or more bytes of data;

a detection unit operative to evaluate each ~~data-byte~~ RLP packet received from the input interface unit one RLP word at a time to detect for bytes of specific values one byte at a time, the detection unit is operative to detect for flag and escape bytes ~~on~~ in the received data, wherein the received RLP packet includes at least a portion of data ~~is a PPP packet data;~~

a state control unit operative to provide a first set of control signals indicative of specific tasks to be performed for deframing based in part on the detected bytes of specific values;

a conversion unit operative to deframe the received data based on the first set of control signals to provide deframed data, the conversion unit being operative to remove flag and escape bytes in the received data one byte at a time; and

a frame check sequence (FCS) generator for checking an FCS value for each complete PPP packet in the received data.

6. (Currently Amended) A deframer for a wireless communication device to recover Point-to-Point Protocol (PPP) packet data which has been framed in Radio Link Protocol (RLP) packets, comprising:

an input interface unit operative to wirelessly receive data to be deframed from one or more Radio Link Protocol (RLP) packets, wherein a RLP packet includes one or more RLP words and wherein a RLP word includes one or more bytes of data;

a detection unit operative to evaluate each ~~data byte~~ RLP packet received from the input interface unit one RLP word at a time to detect for bytes of specific values one byte at a time, the detection unit is operative to detect for flag and escape bytes ~~on~~ in the received data, wherein the received RLP packet includes at least a portion of data is a PPP packet data;

a state control unit operative to provide a first set of control signals indicative of specific tasks to be performed for deframing based in part on the detected bytes of specific values;

a conversion unit operative to deframe the received data based on the first set of control signals to provide deframed data and further operative to un-escape a data byte following each detected escape byte in the received data one byte at a time; and

a frame check sequence (FCS) generator for checking an FCS value for each complete PPP packet in the received data.

7. (Currently Amended) A deframer for a wireless communication device to recover Point-to-Point Protocol (PPP) packet data which has been framed in Radio Link Protocol (RLP) packets, comprising:

an input interface unit operative to wirelessly receive data to be deframed from one or more Radio Link Protocol (RLP) packets, wherein a RLP packet includes one or more RLP words and wherein a RLP word includes one or more bytes of data;

a detection unit operative to evaluate each ~~data byte~~ RLP packet received from the input interface unit one RLP word at a time to detect for bytes of specific values one byte at a time, the detection unit is operative to detect for flag and escape bytes ~~on~~ in the received data, wherein the received RLP packet includes at least a portion of data is a PPP packet data;

a state control unit operative to provide a first set of control signals indicative of specific tasks to be performed for deframing based in part on the detected bytes of specific values;

a conversion unit operative to deframe the received data based on the first set of control signals to provide deframed data and further operative to provide a header word for each detected flag byte in the received data one byte at a time; and

a frame check sequence (FCS) generator for checking an FCS value for each complete PPP packet in the received data.

8-14. (Canceled)

15. (Currently Amended) A deframer for a wireless communication device to recover Point-to-Point Protocol (PPP) packet data which has been framed in Radio Link Protocol (RLP) packets, comprising:

an input interface unit operative to wirelessly receive data to be deframed from one or more Radio Link Protocol (RLP) packets, wherein a RLP packet includes one or more RLP words and wherein a RLP word includes one or more bytes of data;

a detection unit operative to evaluate each ~~data-byte~~ RLP packet received from the input interface unit one RLP word at a time to detect for bytes of specific values one byte at a time, the detection unit is operative to detect for flag and escape bytes in the received data;

a state control unit operative to provide a first set of control signals indicative of specific tasks to be performed for deframing based in part on the detected bytes of specific values;

a conversion unit operative to deframe the received data based on the first set of control signals to provide deframed data, and operative to deframe a block of data for each deframing operation, and further operative to provide a first header for a start of the data block, through use of a detected flag byte, wherein the received RLP packet includes at least a portion of data is a PPP packet data; and

a frame check sequence (FCS) generator for checking an FCS value for each complete PPP packet in the received data.

16. (Canceled)

17. (Currently Amended) A deframer for a wireless communication device to recover Point-to-Point Protocol (PPP) packet data which has been framed in Radio Link Protocol (RLP) packets, comprising:

an input interface unit operative to wirelessly receive data to be deframed from one or more Radio Link Protocol (RLP) packets, wherein a RLP packet includes one or more RLP words and wherein a RLP word includes one or more bytes of data;

a detection unit operative to evaluate each ~~data-byte~~ RLP packet received from the input interface unit one RLP word at a time to detect for bytes of specific values one byte at a time, the detection unit is operative to detect for flag and escape bytes in the received data;

a state control unit operative to provide a first set of control signals indicative of specific tasks to be performed for deframing based in part on the detected bytes of specific value;

a conversion unit operative to deframe the received data based on the first set of control signals to provide deframed data,

wherein the deframer is in one of a plurality of operating states at any given moment, and wherein the operating states include an idle state indicative of no deframing being performed and a process state indicative of deframing being performed, and wherein the operating states further include an escape state indicative of processing for an escape byte and a header state indicative of generation of a header for the deframed data, wherein the received RLP packet includes at least a portion of a data-is a PPP packet data; and

a frame check sequence (FCS) generator for checking an FCS value for each complete PPP packet in the received data.

18. (Currently Amended) A deframer for a wireless communication device to recover Point-to-Point Protocol (PPP) packet data which has been framed in Radio Link Protocol (RLP) packets, comprising:

an input interface unit operative to wirelessly receive an RLP packet of data to be deframed, one word at a time, and for each received word provide one data byte at a time for subsequent processing, and wherein the RLP packet includes one or more complete or partial PPP packets having a format defined by RFC1662;

a detection unit operative to evaluate each ~~data-byte~~ RLP packet received from the input interface unit one RLP word at a time to detect for flag, escape, and invalid bytes one byte at a time;

a state control unit operative to provide a first set of control signals indicative of specific tasks to be performed for deframing based in part on the detected bytes of specific value;

a conversion unit operative to deframe the received data based on the first set of control signals and to process each data byte from the interface unit by removing flag and escape bytes, un-escaping a data byte following each escape byte, and providing a header word for each flag byte, wherein the received RLP packet includes at least a portion of a data-is a PPP packet data;

an output interface unit operative to provide deframed data; and

a frame check sequence (FCS) generator for checking an FCS value for each complete PPP packet in the received data.

19. (Currently Amended) An integrated circuit for a wireless communication device to recover Point-to-Point Protocol (PPP) packet data which has been framed in Radio Link Protocol (RLP) packets, comprising:

an input interface unit operative to wirelessly receive an RLP packet of data to be deframed, one word at a time, and for each received word provide one data byte at a time for subsequent processing, and wherein the RLP packet includes one or more complete or partial PPP packets having a format defined by RFC1662;

a detection unit operative to evaluate each ~~data byte~~ RLP packet received from the input interface unit one RLP word at a time to detect for flag, escape, and invalid bytes one byte at a time;

a state control unit operative to provide a first set of control signals indicative of specific tasks to be performed for deframing based in part on the detected bytes of specific value;

a conversion unit operative to deframe the received data based on the first set of control signals and to process each data byte from the interface unit by removing flag and escape bytes, un-escaping a data byte following each escape byte, and providing a header word for each flag byte, wherein the received RLP packet includes at least a portion of a data ~~is a PPP packet data~~;

an output interface unit operative to provide deframed data; and

a frame check sequence (FCS) generator for checking an FCS value for each complete PPP packet in the received data.

20-52. (Canceled)